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Effect of Local versus Imported Rodent Diet on Body Weight and Blood Parameters of Sprague-Dawley Rats

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Abstract

This study was conducted to determine the effect of short-term (28 day) feeding of a local and two imported rodent diet on the body weight and blood profile of the Sprague-Dawley rats. Thirty female Sprague-Dawley rats aged between five to six weeks were placed in pairs in the polyethylene cages. Water and feed were given *ad libitum*. The rats were assigned to three groups where one group was fed the local diet; the second fed a United States of America diet and the third an Australian diet. The rats were weighed on days 0, 7, 14, 21 and 28 and the feed excess weighed every two days. From this study, it can be concluded that in short-term feeding, the body weight of Sprague-Dawley rat were affected by the type of diet. However, there was no significant difference between blood parameters of rats fed local and imported diet. This also holds true for the liver enzymes. However, there was a significant ($p > 0.05$) difference in blood urea nitrogen (BUN) concentrations between these rats. The Australian diet produced less effect on BUN concentrations.

Keywords: Sprague-Dawley rat, rodent diet, acute toxicity, body weight, blood parameter